

Work Order ID 79660

February-01-12 11:26:10 AM

79660

Page 1

Item ID: D206-642-341

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Replacement Skidtube

Stop *NS2*

Start Date: 31/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.C.J.

Date: 12/02/0

Tooling:

Date:

Run Start *NR1*

QC:

Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2650	F								

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D206-642-341 CHG003

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 79660***79660***

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Item ID: D206-642-341

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N900040100Setup Start ***NS1***

Revision ID:

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Start Date: 31/01/2012 Start Qty: 1.00

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1

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
110									
Skidtubes	Memo	0.00							
Skidtubes	1-Deburr Fwd edge of tube								
	2-Remove ridge on inside of Fwd edge of tubeas per Dwg D2650								
	3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.								
	A/RAluminum Rod <u>M120164</u>								
	4-Grind weld flush to cap on top surface only.								
	5-Cut aft end to lenght as per dwg D2650								
	6-Drill pilot holes using drill Jig DT8168A (A,& B) and DT8025. Open to Ø0.312"								
	7-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297".								
	8-Open Aft Cap Hole using #6 Drill Bit								
	9-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail								
	10-Remove inner indexing ridge on aft end of skidtubeas per Dwg D2650								
	11-Deburr and Blow out all chips form inside the tube								

CF 12-3-22

} BF 12-03-26
CF 12-3-28

SAD 12-03-29

→ CF 12-3-28

→ SAD 12-03-29

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

115

QC5- Inspect part completeness to step on W/O

0.00

115

QC

Memo

0.00

8/12/13/29

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

HandFinish

Memo

0.00

DL 12/03/29

Hand Finishing

125

QC3- Inspect Part Finish

0.00

125

QC

Memo

0.00

① 3AD 12-03-29

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Required Date: 20/04/2012 Req'd Qty: 1.00

1

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Skidtubes

0.00

Skidtubes

Memo

1-Open holes to finished size as per Dwg D2650, D2650-5 Drilling Detail (without cutting fluid)

2-Countersink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr. Blow out chips. Grind alodine off around crossbolt spacer.

4-Bond D2654-5 web in place as per QSI 015 Ensure holes line up Allow 12 Hrs. cure time before cutting

Start Date: 12/03/12 Time: 3:39

Finish Date: 20/04/12 Time: 7:00

A/R Sikaflex-291 42/08/13 120813

Sikaflex expiry date: 17/08/13

DE 12/03/29

DE 12/03/29

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

1 8 BE 12/04/02

W/O:		WORK ORDER CHANGES					
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1

Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Skidtubes	0.00							
150									
Skidtubes	Memo	0.00							
Skidtubes	1-Prep per QSI 005 and Insert cross bolt spacers D2649. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod A/RAluminum Rod <i>m 12064</i>								
	2-Grind welds flush as per Dwg D2650. Masking Tape access to inside of the Skidtube								
	3-Counterbore 5/16" x 0.750" deep as per Dwg D2650Deburr								
	4- Install nut plate as per dwg								
170	QC10- Inspect visual per QSI004- ground welds	0.00							
170									
QC	Memo	0.00							
Quality Control									

86 12/04/02
CF 12-4-2
7 B/CC 12/4/2
8.17.04/03

W/O:		WORK ORDER CHANGES					
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1

Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

190

Pressure Wash per QSI005 4.3

0.00

190

HandFinish

Memo

0.00

Hand Finishing

Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.

1X6 M-12/04/04

205

0.00

205

SprayPaint

Memo

0.00

Spray Painting

PRIME B 117319
DELFLEET BLUE B 118395
CLEAR DELFLEET B 118093

AB

12 - 4 - 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

215

QC14- Inspect Spray Paint

0.00

215

QC

Memo

0.00

Quality Control

w 12 - 04 - 05 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***


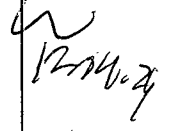
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	HandFinishing	0.00							
220									
HandFinish	Memo	0.00							
Hand Finishing	1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. A/RSikaflex-291 <u>119443</u> Sikaflex expiry date: <u>12/10</u>								
	2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive								
	3-Install MS27039-4-06 Screw								
	4-Inspect for foreign object per QSI 024								
	5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive A/RSikaflex-291 <u>119443</u> Sikaflex expiry date: <u>12/10</u>								
	6-Wing Walk as per Dwg D2650-5 and QSI 005 4.4 Batch: <u>121121</u>								

1 8 OP 12/04/16.

PTO →

W/O: 71660		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
12/04/16	220	as per Detail "E" Drawing End CHP assemble w MS27039-1-09 screws Batch 124011		12/04/16	2		S 12/04/16

Part No: PZ06-642-341 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 79660***79660***

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February-01-12 11:26:10 AM

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N900040100Setup Start ***NS1***

Revision ID:

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Item Name: Replacement Skidtube

Start Date: 31/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

230

QC3- Inspect Part Finish

0.00

230

QC

Memo

0.00

Quality Control

240

QC5- Inspect part completeness to step on W/O

0.00

240

QC

Memo

0.00

Quality Control

250

Packaging

0.00

250

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-341

Location: _____

PPP Rev: PPP 796 36

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Skidtube

Start Date: 31/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 20/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260

QC21- Final Inspection - Work Order Release

0.00

260

QC

Memo

0.00

Quality Control

MLJ 12/04/20

12-04-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Picklist Print

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Page 1

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79660

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev: H05.10.11 Added D3429-1 per CHG004KJ/CP/JLM
 IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DS19440 rev.a DD verified by: EC IPP rev K 10.08.03 chg ms27039-1-08 for "C" type EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN960JD416 *NAS1149D0463 Purchased

No

Each

0.0000

1

AN960JD416

Washer

121 255

1 ** 12/04/13

~~100 12/14/12~~

CCR264SS3-3 Purchased

No

Each

867.0000

2

CCR264SS3-3

Cherry Rivet

**

100 12/14/12

Location

Loc Qty

Loc Code

ST331

867

113973

2

117849

135

119017

730

CR3212-4-03 Purchased

No

Each

1,632.000

CR3212-4-03

Cherry Rivet

**

100 12/14/12

Location

Loc Qty

Loc Code

FP002

642

114859

642

ST331

990

110139

2

119017

988

100 12/14/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2620

Manufactured No

Each

58.0000

1

D2620

Skidtube, 206 Skidtube

B81366

**

①

CF 12-3-22

Location

Loc Qty

Loc Code

LG

58

71617

2

76820

6

77996

10

77999

10

78000

10

79542

10

79543

10

D2647

Manufactured No

Each

120.0000

1

D2647

Cap

**

BE 12-03-26

Location

Loc Qty

Loc Code

LG002

120

73826

12

75482

108

1

W/O:		WORK ORDER CHANGES					
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Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

Each

731.0000

19

D2649

Cross Bolt Spacer

**

BL 12/04/02
B 79502 19

Location	Loc Qty	Loc Code
LG	415	
77574	15	
78019	400	
LG001	316	
65317	1	
68224	2	
68507	11	
71355	2	
72704	2	
72841	11	
73390	8	
73857	21	
73858	53	
73859	4	
73860	4	
78020	197	

D2654-5

Manufactured No

Each

4.0000

1

D2654-5

Web

**

DC 12/03/29

Location	Loc Qty	Loc Code
LG	4	
78832	4	

①

W/O:		WORK ORDER CHANGES					
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Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2680-041

Manufactured No

Each

101.0000

D2680-041

Nut Plate

**

\$ / CC 12/4/12

Location

Loc Qty

Loc Code

ST013

5

75479

5

ST019

96

76790

96

Each

1,542.000

**

1

56 2P 12/04/13

MS27039C1-08

Purchased

No

MS27039C1-08

SCREW

Location

Loc Qty

Loc Code

FP002

1

116022

1

ST292

1000

120308

1000

ST293

541

116373

3

118077

14

118159

412

119309

112

220

Each

2,033.000

**

54

54 2P 12/04/13

ALS4-1032-130

Purchased

No

ALS4-1032-130

Insert

Location

Loc Qty

Loc Code

ST280

944

119084

944

ST281

1089

119632

89

120410

1000

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-01-12 11:26:14 AM

Page 5

Work Order ID: 79660

79660

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

AN960C10L * NAS1149C0332 ✓ Purchased No

*AN960C10I *

washer

AN960JD10L * NAS1149D0332J ✓ Purchased No

*AN960.ID10I *

Washer

D2646 Manufactured No

D2646

Aft Cap

Location

Loc Qty

Loc Code

FP002

79018 ✓

74

62678

5

68280

5

70945

1

71070

2

73294

1

73825

60

**

54

SA

12/04/13

**

2

2

**

1

1

SA

12/04/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-01-12 11:26:14 AM

Page 6

Work Order ID: 79660

79660

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2651-1

Manufactured No

220

Each

705.0000

14

14

D2651-1

Plug

**

14

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP001

49234 ✓

699

57869

1

66445

10

69018

2

70827

2

70839

8

71037

11

72864

25

73827

23

78584

317

FP-A

6

77559

22

78124

284

D2651-3

Manufactured No

220

Each

2,383.000

14

14

D2651-3

O-Ring

**

14

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP001

383

61962

12

73828

371

FP-A

2000

78126 ✓

2000

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-01-12 11:26:14 AM

Page 7

Work Order ID: 79660

79660

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-11

Manufactured No

220

Each

14.0000

1

1

D3535-11

Wearshoe

**

1

DP

12/04/13

Location

Loc Qty

Loc Code

FP001

14

70879

1

71284

13

D3535-23

Manufactured No

220

Each

29.0000

1

1

D3535-23

Wearshoe

**

1

DP

12/04/13

Location

Loc Qty

Loc Code

FP001

29

73314

18

74508

11

D3535-35

Manufactured No

220

Each

14.0000

1

1

D3535-35

Wearshoe

**

1

DP

12/04/13

Location

Loc Qty

Loc Code

FP001

14

67598

1

70815

1

74509

12

D3536-11

Manufactured No

220

Each

10.0000

1

1

D3536-11

Gasket

**

1

DP

12/04/13

Location

Loc Qty

Loc Code

FP002

10

46649

1

46715

4

65574

1

71283

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-01-12 11:26:14 AM

Page 8

Work Order ID: 79660

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

79660

D206-642-341

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-23

Manufactured No

220 Each

28.0000 1 1

D3536-23

Gasket

**

1

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP002

28

43406

1

73312

15

74510

12

D3536-35

Manufactured No

220 Each

25.0000 1 1

D3536-35

Gasket

**

1

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP002

25

73313

7

74511

18

D3537-1

Manufactured No

220 Each

33.0000 6 6

D3537-1

Wearpad

**

6

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP002

33

69817

5

77560

28

D3537-3

Manufactured No

220 Each

30.0000 1 1

D3537-3

Wearpad

**

1

(2P)

12/04/13

Location

Loc Qty

Loc Code

FP002

30

74500

25

76986

5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-01-12 11:26:14 AM

Page 9

Work Order ID: 79660

79660

Parent Item: D206-642-341

D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 31/01/2012

Required Date: 20/04/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-4-06

Purchased

No

220

Each

255.0000

1

1

MS27039-4-06

**

Screw

DP

12/03/13

Location

Loc Qty

Loc Code

ST292

255

119075 ✓

255

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

79660 M.C.J
12/02/01

RELEASED
08-07-23/17

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

REV.	DESCRIPTION	BY	DATE
F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW: INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
DESIGN	DS	DART AEROSPACE USA, INC PORT HADLOCK, WA DRAWING NO. REV. F D2650 SHEET 1 OF 6 TITLE SCALE 206/407 SKIDTUBE ASSEMBLIES NTS COPYRIGHT © 1997 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CORRECT THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	
DRAWN	AJS		
CHECKED	J		
MFG. APPR.	B		
APPROVED	AP		
DE APPR.	H		
DATE	08.08.08		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Technical drawing of a structural member, likely a beam or plate, showing dimensions and details. The drawing includes the following specifications:

- Overall Dimensions:**
 - Total length: 96.5
 - Distance from left end to bend tangent: 79.4
 - Distance from bend tangent to right end: 16.1
- Left End Details:**
 - Radius: R30±1
 - Reference dimension: 17.1 REF
 - Vertical dimension: 5.0
- Web and Hole Details:**
 - Web designation: D2654-1 WEB
 - Hole diameter: Ø0.375
 - Plating: 17 PL PER SIDE
 - Number of holes: 5 HOLES @ 7.725 PITCH
 - Distance between hole centers: 30.90
 - Distance from left end to first hole: 53.850
 - Distance from last hole to right end: 13.50
- Right End Details:**
 - Distance from last hole to end of member: 10.00
 - Distance from last hole to center of detail A: 6.500
 - Distance from center of detail A to end of member: 2.00 TO WEB
- Detail A (C8-6):**
 - Location: Near the right end of the member.
 - Distance from last hole to center of detail A: 15.22
 - Distance from center of detail A to end of member: 2.00 TO WEB
- Detail B (C6-6):**
 - Location: Near the right end of the member.
 - Distance from last hole to center of detail B: 7.00 FLAT
 - Distance from center of detail B to end of member: 19.00^{+0.03}_{-0.00}
- Other Dimensions:**
 - Distance from left end to center of detail A: 63.85
 - Distance from left end to center of detail B: 5.00
 - Distance from left end to center of detail B: 5.225
 - Distance from left end to center of detail B: 3.975
 - Distance from left end to center of detail B: 6.500

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

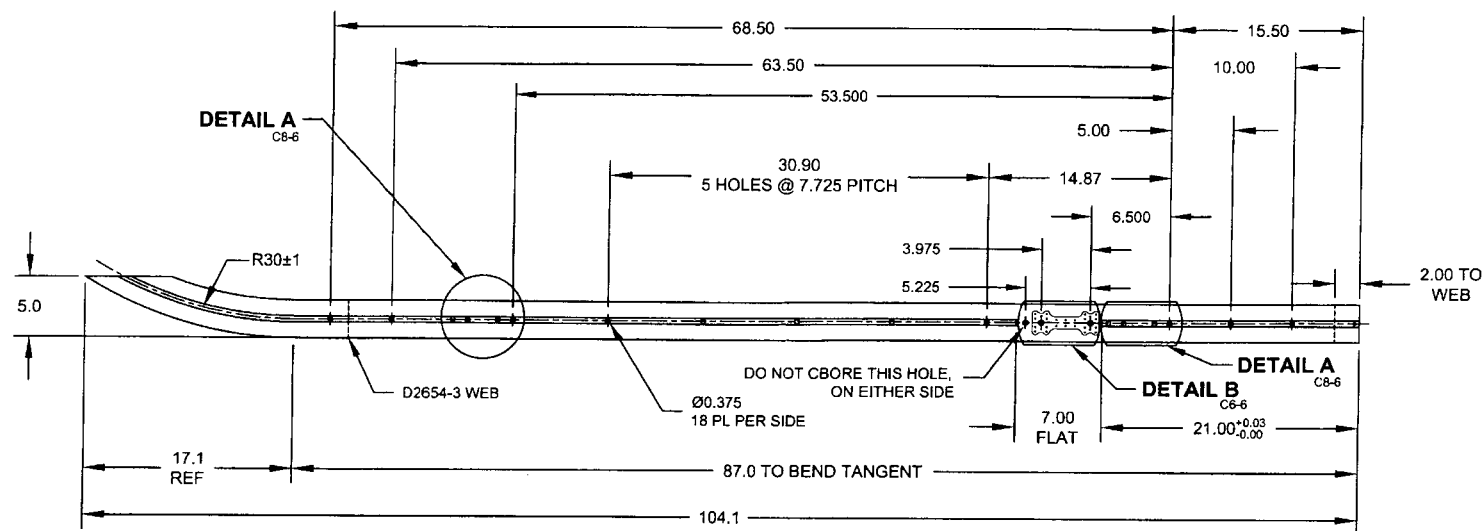
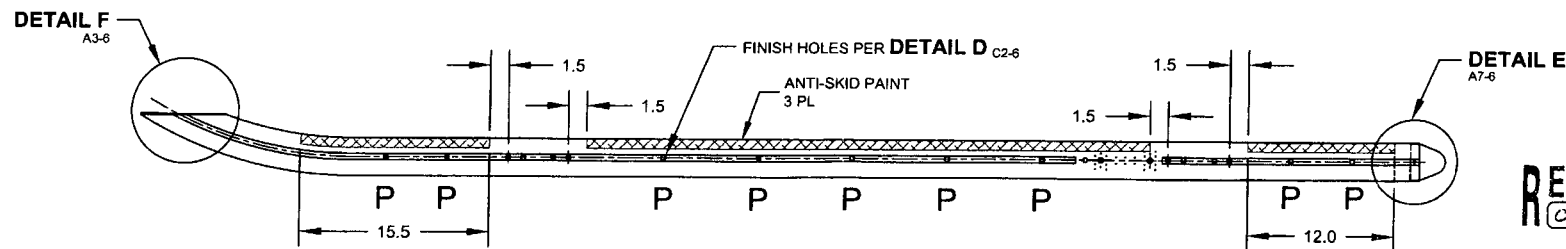
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____





Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

79660

**D2650-3 BENDING/DRILLING DETAIL****D2650-3 ASSEMBLY/FINISHING DETAIL**RELEASED
08-07-22

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

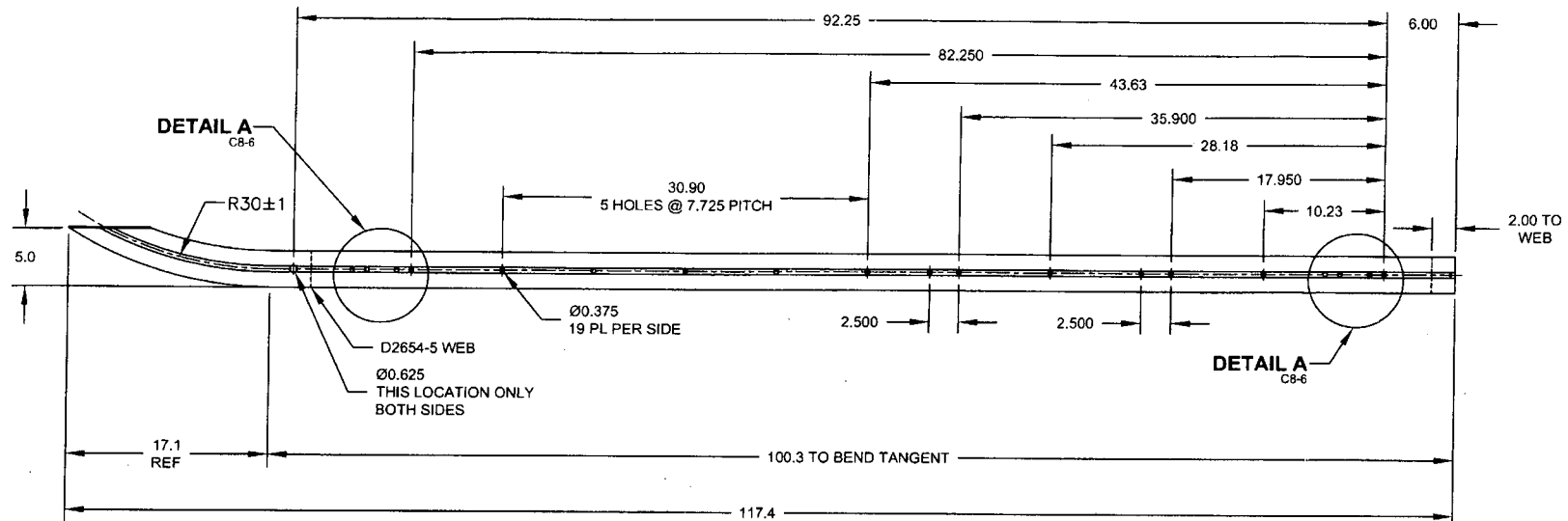
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

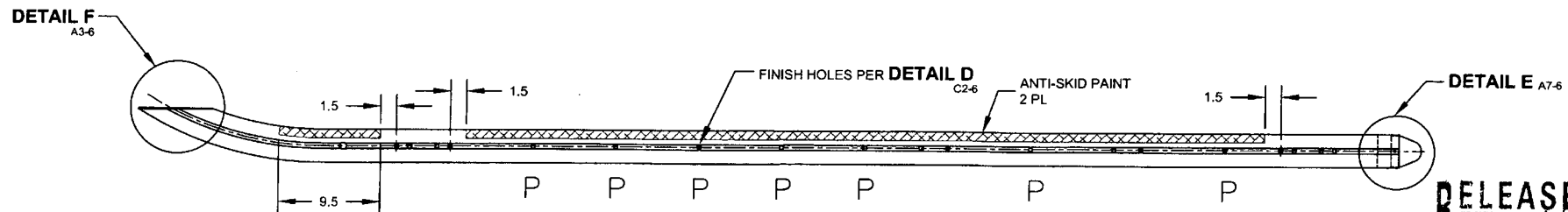
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

79660



D2650-5 BENDING/DRILLING DETAIL



D2650-5 ASSEMBLY/FINISHING DETAIL

RELEASED
08.09.22/11/17

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	A/S	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 4 OF 8
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Technical drawing of a structural member, likely a beam or plate, showing dimensions and callouts. The drawing is oriented horizontally with a vertical centerline on the left. The member has a total length of 138.6 units. Key dimensions and features include:

- Overall Dimensions:**
 - Total length: 138.6
 - Distance from centerline to bend tangent: 121.5
 - Distance from centerline to end: 17.1 REF
- Curved Section:**
 - Radius: $R30 \pm 1$
 - Thickness: 5.0
- Web Section:**
 - Label: D2654-7 WEB
- Holes and Spacing:**
 - 5 HOLES @ 7.725 PITCH
 - Ø0.375 23 PL PER SIDE
 - Ø0.625 THIS LOCATION ONLY BOTH SIDES
 - 2.500 spacing between hole groups
- Detail A (C8-6):** Two circular callouts labeled "DETAIL A C8-6" are shown, one near the curved section and one near the end.
- Other Dimensions:**
 - 106.00, 99.75, 93.50, 82.250, 43.63, 35.900, 28.18, 17.950, 10.23, 13.50, 5.000, 10.000, 2.00 TO WEB

[illegible]

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. P.
MFG. APPR.	<i>[Signature]</i>	D2650	SHEET 5 OF 6
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	206/407 SKIDTOE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

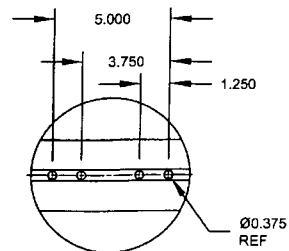
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

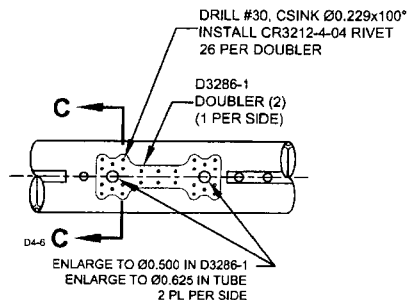
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

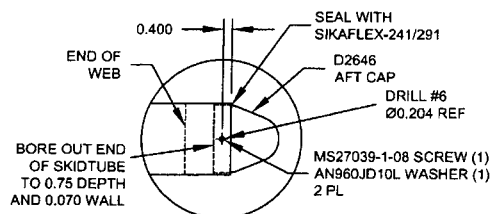
79660



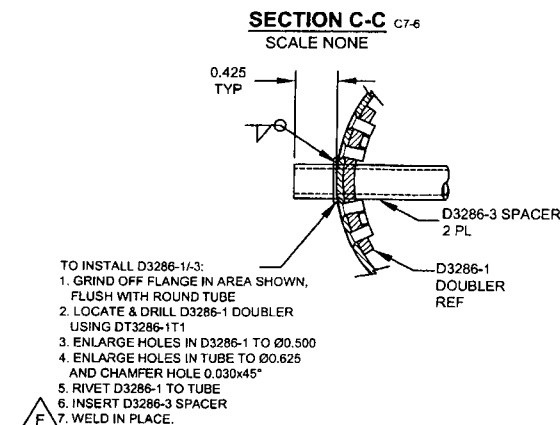
DETAIL A
SCALE 2X
C2-2
D7-2
C2-3
D7-3
C2-4
D7-4
C2-5
D6-5



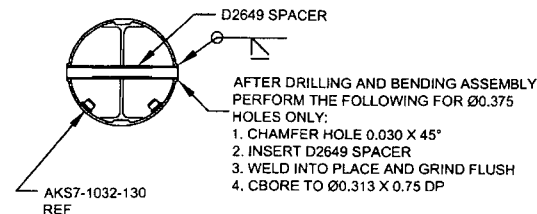
DETAIL B
SCALE 2X
C3-2
C3-3



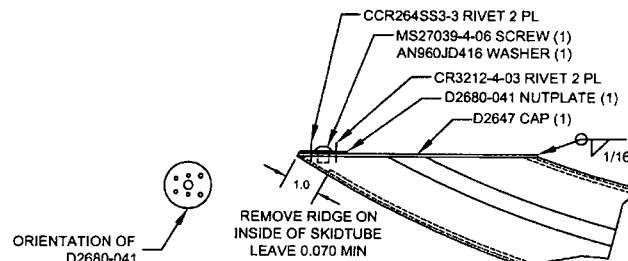
DETAIL E
SCALE 2X
B2-2
B2-3
B1-4
B1-5



F



DETAIL D
FOR Ø0.375 HOLES ONLY
SCALE 3X
B4-2
B4-3
B4-4
B4-5







DETAIL F
SCALE NONE
B6-2
B6-3
B6-4
B6-5

- DETAIL F NOTES:**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D2647 (TRIM AS NECESSARY)
 4. WELD D2647 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 287

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 79657
Part number: A206-646-341
Description: Skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Alum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier David Lund Date of Test Coupon 12-04-03
Welder Barclay Elliott Date of Test Coupon 12-04-03

The above named individual is qualified in accordance with AWS D17.1.2001 to weld